

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference PU030015	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/US04/00511	International filing date (day/month/year) 09 January 2004 (09.01.2004)	Priority date (day/month/year) 09 January 2003 (09.01.2003)
International Patent Classification (IPC) or national classification and IPC IPC(7): H04J 3/22 and US Cl.: 370/395.52, 395.64, 432, 466, 486		
Applicant THOMSON LICENSING S.A.		
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>6</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p> <p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>		
Date of submission of the demand 06 August 2004 (06.08.2004)	Date of completion of this report 03 December 2004 (03.12.2004)	
Name and mailing address of the IPEA/ US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer Tri H. Phan <i>Rugenia Zogan</i> Telephone No. (571) 272-3074	

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/US04/00511

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
☐ publication of the international application (under Rule 12.4)
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-12 as originally filed/furnished
pages* NONE received by this Authority on _____
pages* NONE received by this Authority on _____

☒ the claims:

pages NONE as originally filed/furnished
pages* NONE as amended (together with any statement) under Article 19
pages* 13-15 received by this Authority on 06 AUGUST 2004
pages* NONE received by this Authority on _____

☒ the drawings:

pages NONE as originally filed/furnished
pages* 1-3 received by this Authority on 06 AUGUST 2004
pages* NONE received by this Authority on _____

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing (*specify*): _____
☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
☐ the claims, Nos. _____
☐ the drawings, sheets/figs _____
☐ the sequence listing (*specify*): _____
☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/US04/00511**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims <u>1-17</u>	YES
	Claims <u>NONE</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-17</u>	NO
Industrial Applicability (IA)	Claims <u>1-17</u>	YES
	Claims <u>NONE</u>	NO

2. Citations and Explanations (Rule 70.7)

Claims 1-17 lack an inventive step under PCT Article 33(3) as being obvious over Tomita (US 2002/0003799 A1) in view of Tiernan et al. (6,172,988 B1). Tomita discloses about the data transmission method and device (figs. 9, 15; paragraph [0046-0047]) to be used for transmitting real time data such as video conference system, e.g. multicast, and video on demand 'VoD' system conforming to IP by using TCP, UDP or RTP protocol (figs. 1-3, 8, 10-13) to utilize telecommunications networks; wherein the transport stream 'MPEG2-TS' of the elementary streams 'ES' is received by the data reading section, divided to produce PES packets (figs. 5-7) and RTP packets (figs. 12-13) by the RTP packet preparing section, prepared IP packets by adding IP or UDP header to the top of the RTP packets (figs. 8, 10-11) and transmitted to the IP network by the data transmitter. Tomita does disclose about the packet identifier 'PID' of the TS packet (see paragraph [0017]); but fails to explicitly disclose about the wireless transmission with multicast IP addresses; however, digital broadcasting via wireless transmission and multicasting IP addresses are well known in the art; therefore, it would have been obvious to one of ordinary skill in the art to implement the digital broadcast via wireless with multicast IP address. Tomita also fails to explicitly disclose about the associated PSI, which includes the PAT, PMT, CAT and NIT. Tiernan discloses in Fig. 1-9; about the method and system for transmitting digital signals containing digital video and audio signals, such as MPEG2, conforming to packet-based multiplexed communication, e.g. IP; wherein the transport stream 'TS' components including PID, PSI with PAT, PMT, CAT and other control information (for example see col. 1, line 46 through col. 2, line 13). Therefore, it would have been obvious to one of ordinary skill in the art to implement the associated PSI with PAT, PMT, CAT and other control information into the PID for controlling and conforming to the packet-based system as disclosed by Tiernan.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claims 15-17 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because claims 15-17 are indefinite for the following reason(s): because the subject matter of independent claims 1, 10 and 12-14 is not consistent with claim 15; which leaves a doubt as to the scope of protection sought.

Regarding claims 1, 10 and 12-14, the preferential device and method for transmitting and receiving audio and video data, with means for receiving, means for demultiplexing, means for reassembling, means for encapsulating, means for communicating. On the contrary in the corresponding computer readable medium claim 15, the preferential data structure is mentioned for first field, second field, third field, fourth field and the indicator flag in the packet.